Amendments to the Claims:

Please amend claims 1, 11, 12, 14 and 15 as shown in the listing of claims below. This listing of claims will replace all prior versions and listings of claims in the application.

1. (currently amended) A method for providing a next-cycle input sample from a decision feedback equalizer to a symbol decoder using look-ahead computations such that timing contention between the decision feedback equalizer and the symbol decoder is reduced, the method comprising:

(a) computing, ~~during~~ during a symbol period, a set of possible values in the decision feedback equalizer and a set of path memory symbols in the symbol decoder, the set of path memory symbols being based on a current input sample; and

(b) selecting, during the symbol period, one of the possible values as the next-cycle input sample based on at least one of ~~the~~ a plurality of next-cycle path memory symbols produced from the symbol decoder.

2. (original) The method of claim 1 wherein the symbol decoder corresponds to a trellis code having N states, wherein the decision feedback equalizer provides N next-cycle input samples to the symbol decoder, the N next-cycle input samples corresponding one-to-one to the N sates of the trellis code.

3. (original) The method of claim 1, wherein the decision feedback equalizer is a multiple decision feedback equalizer.

4. (original) The method of claim 1, wherein the decision feedback equalizer and symbol decoder are formed as an integrated block for passing data therebetween.

5. (original) The method of claim 1, wherein the symbol decoder is a Viterbi decoder, and wherein the Viterbi decoder computes intermediate decisions, select signals, and path select signals, and provides the decisions and signals to the decision feedback equalizer.

6. (original) The method of claim 5, wherein the decision feedback equalizer is a multiple decision feedback equalizer, and wherein the multiple decision feedback equalizer computes all possible candidates for inputs to the Viterbi decoder, and selects decisions from the candidates and provides the selected inputs to the Viterbi decoder.

7. (original) The method of claim 6, further including receiving outputs from the Viterbi decoder at the multiple decision feedback equalizer, using the Viterbi outputs to select Viterbi inputs from a set of possible values, providing the Viterbi inputs to the Viterbi decoder, and computing decisions and path select signals for a next symbol period at the Viterbi decoder.

8. (original) The method of claim 1, further including performing slicing functions at the decision feedback equalizer to produce the intermediate decisions, select signals and path select signals.

9. (cancelled)

10. (cancelled)

11. (amended) A multiple decision feedback equalizer for cooperation with a ~~symbol~~ Viterbi decoder to provide a next-cycle input sample from the decision feedback equalizer to the symbol decoder using look-ahead computations, comprising:

circuitry operable to receive intermediate decisions and select signals from the Viterbi decoder and to generate a next-cycle input sample using look-ahead computations; and

plural outputs to be delivered to the symbol decoder, wherein the respective outputs are buffered by delay elements[[,]]

~~wherein the symbol decoder is a Viterbi decoder, and wherein the Viterbi decoder computes intermediate decisions and select signals, and provides the decisions and select signals to the equalizer~~.

12. (currently amended) The equalizer of claim 11, wherein the ~~equalizer~~ circuitry is operative to receive intermediate decisions from the ~~symbol~~ Viterbi decoder, compute all possible values for next-cycle decoder inputs, and select the inputs based on select signals received from the ~~symbol~~ Viterbi decoder.

13. (cancelled)

14. (currently amended) A multiple decision feedback equalizer for cooperation with a symbol decoder to provide a next-cycle input sample from the decision feedback equalizer to the symbol decoder using look-ahead computations, comprising:

circuitry operable to receive symbol outputs from the symbol decoder and to use the symbol outputs to select symbol inputs from a set of possible values; and

plural outputs to be delivered to the symbol decoder, wherein the respective outputs are buffered by delay elements~~; and~~

~~wherein the equalizer receives outputs from the symbol decoder, uses the symbol outputs to select symbol inputs from a set of possible values, and provides the inputs to the symbol decoder~~.

15. (currently amended) A multiple decision feedback equalizer for cooperation with a symbol decoder to provide a next-cycle input sample from the decision feedback equalizer to the symbol decoder using look-ahead computations, comprising:

plural outputs to be delivered to the symbol decoder, wherein the respective outputs are buffered by delay elements; and

~~wherein the equalizer comprises~~ slicers to produce intermediate decisions, select signals and path select signals.